

Super Bright LED

Features

- High efficient light output
- Low thermal resistance
- Compatible with automatic placement equipment
- Mono-color type
- RoHS Compliant

Applications

- Vehicle Signal Lamp
- Architecture lighting
- Specialty lighting

Device Selection Guide

| Chip | | | Lens Color |
|---------------|----------|---------------|-------------|
| Part No. | Material | Emitted Color | |
| TLH-Q1W8-ZIKK | AllnGaP | Red | Water Clear |

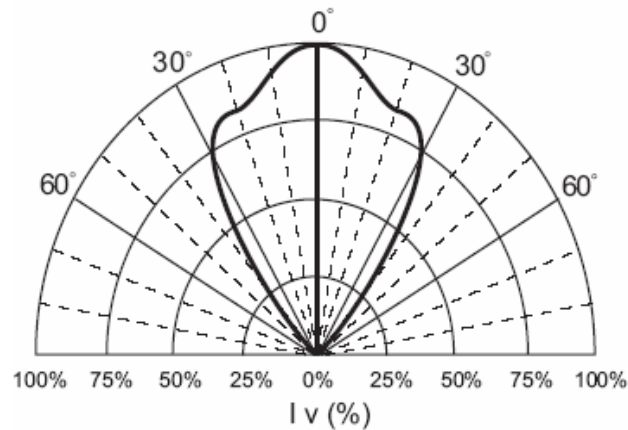
Absolute Maximum Ratings ($T_{amb}=25^{\circ}C$)

| Parameter | Symbol | Value | Unit |
|----------------------------|------------------------|---------------------|------|
| Reverse Voltage | V_R | 10 | V |
| Forward Current | I_F | 70 | mA |
| Power Dissipation | P_d | 224 | mW |
| Operating Temperature | T_{opr} | -40 ~ +85 | °C |
| Storage Temperature | T_{stg} | -40 ~ +100 | °C |
| Lead Soldering Temperature | T_{sol} | 260 (for 5 seconds) | °C |

Electro-Optical Characteristics (T_{amb}=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|---------------------|-----------------|-------|-------|-------|---------|----------------------|
| Luminous Flux | Φ_v | 2750 | 3500 | ----- | mlm | I _F =70mA |
| Viewing Angle | $2\theta_{1/2}$ | ----- | 70 | ----- | deg | |
| Dominant wavelength | λ_d | ----- | 623 | ----- | nm | |
| Forward Voltage | V_F | ----- | 2.7 | 3.2 | V | |
| Reverse Current | I_R | ----- | ----- | 100 | μ A | V _R =10V |

Typical Electro-Optical Characteristics Curves



Radiation Diagram

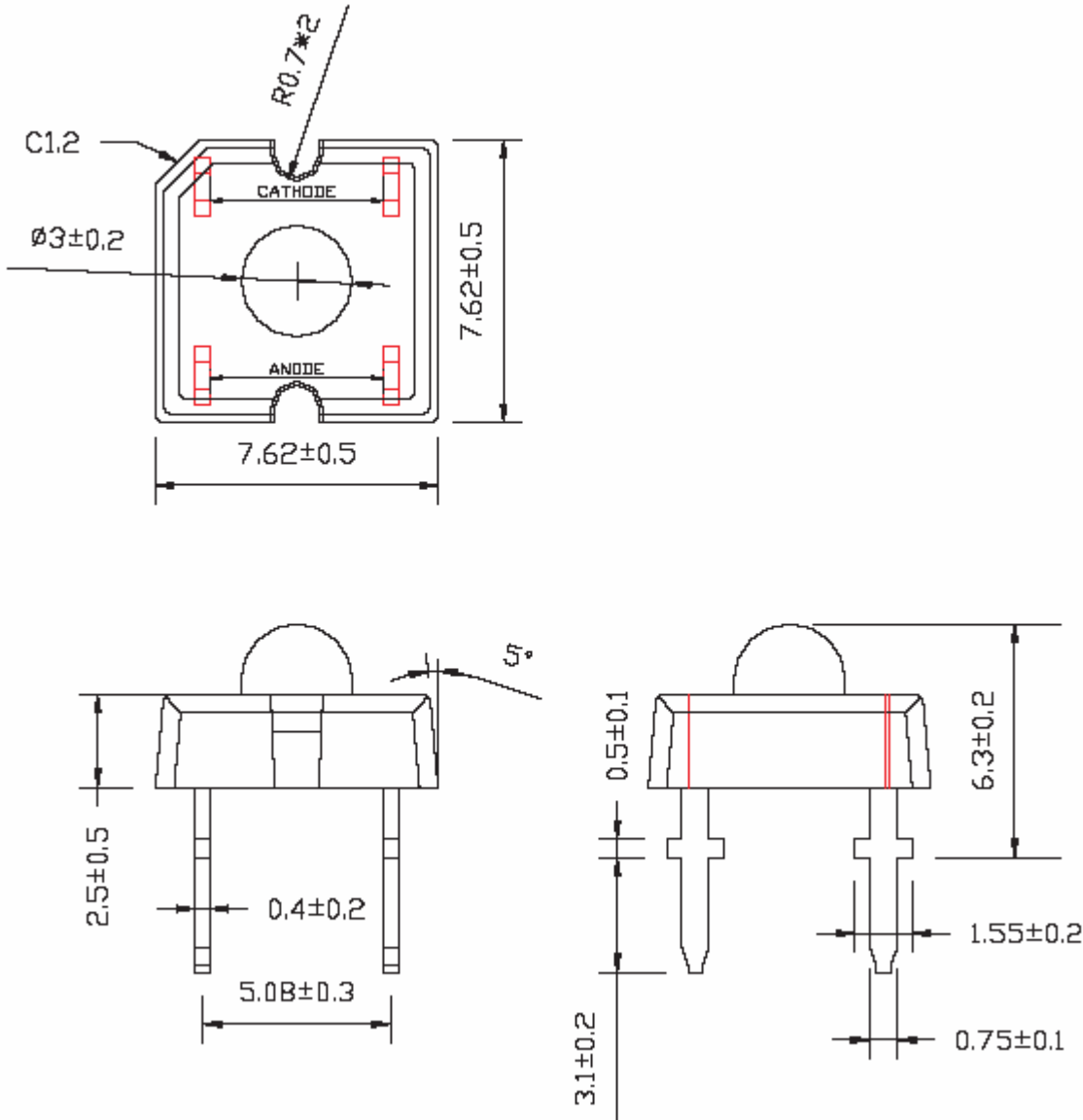
Reliability Test Items and Conditions

The reliability of products shall be satisfied with items listed below.

The reliability is tested in compliance with MIL standard.

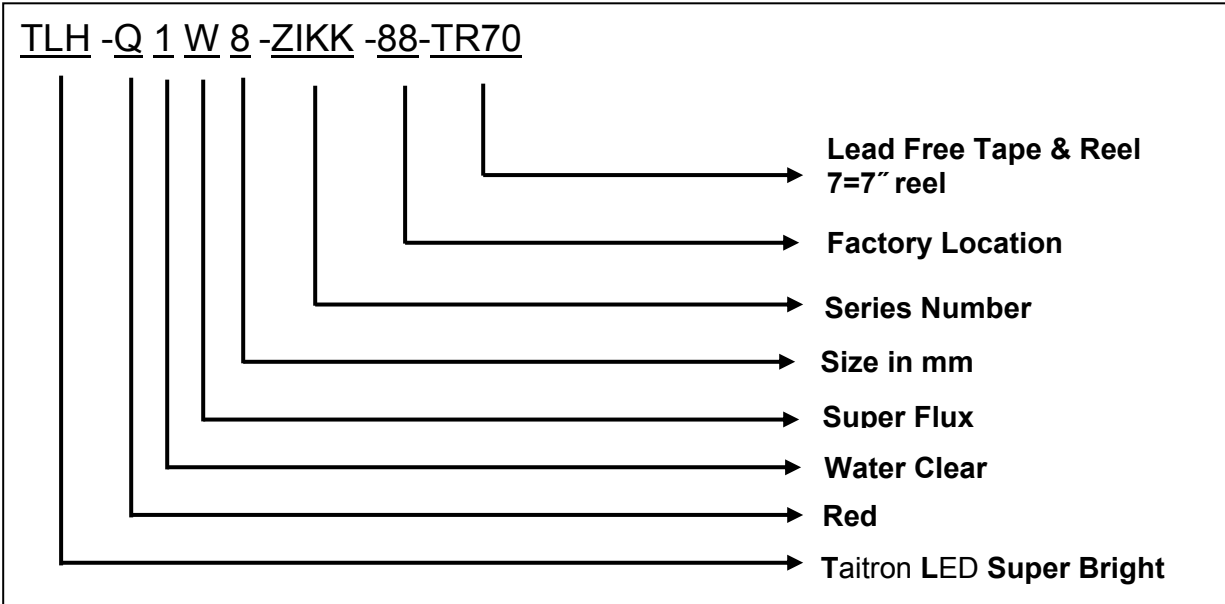
| No. | Items | Test Condition | Test Hours / Cycles | Sample Size | Ac/Re |
|-----|----------------------------------|---|---------------------|-------------|-------|
| 1 | Operating Life Test | Temp.: 25°C IF = 350 mA | 1000 Hrs. | 22 PCS. | 0/1 |
| 2 | Temperature Cycle | H: +100°C 30min M:25°C 5 min L: 0°C 30min | 50 Cycles | 22 PCS. | 0/1 |
| 3 | Thermal Shock Test | H: +100°C 2min L: 0°C 2min | 1000 Cycles | 22 PCS. | 0/1 |
| 4 | High Temperature Storage | Temp.: 100°C | 1000 Hrs. | 22 PCS. | 0/1 |
| 5 | Low Temperature Storage | Temp.: -40°C | 1000 Hrs. | 22 PCS. | 0/1 |
| 7 | High Temperature / High Humidity | 85°C / 85%RH IF = 100 mA | 500 Hrs. | 22 PCS. | 0/1 |

Package Dimensions (In mm)



- Note: 1. The tolerances unless mentioned is ± 0.2 mm.
- 2. Protruded resin under bottom surface of epoxy is 1.5mm Max.

Ordering Information



Code of Luminous Flux

| Code | Min. | Max. | Unit | Condition |
|------|------|------|------|-----------|
| E | 2750 | 3850 | mlm | If=70mA |
| F | 3850 | 5400 | | |

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